

## ANIMALS TRANSGENIC FOR A TETRACYCLINE-INDUCIBLE TRANSCRIPTIONAL ACTIVATOR

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### Abstract

Transgenic animals carrying a transgene comprising a nucleic acid molecule encoding protein useful for regulating the expression of genes in eukaryotic cells and organisms in a highly controlled manner are disclosed. In the regulatory system of the invention,  
10 transcription of a *tet* operator-linked nucleotide sequence is stimulated by a transcriptional activator fusion protein composed of two polypeptides, a first polypeptide which binds to *tet* operator sequences in the presence of tetracycline operatively linked to a second polypeptide activates transcription in eukaryotic cells. In a preferred embodiment, the transgene encoding  
15 the transcriptional activator fusion protein is integrated at a predetermined location within the chromosome of the transgenic animal.